

## WHAT IS CLAIMED IS:

1. A fuel metering unit in a turbomachine, the unit being mounted between a high pressure pump which draws fuel from a fuel tank and a plurality of fuel injectors for  
5 injecting the fuel into a turbomachine combustion chamber, the unit comprising a meter which has an inlet receiving fuel for injection from a regulator valve at a pressure P1 and has an outlet which delivers the fuel at a pressure P2 to said plurality of injectors via a stop  
10 valve, said regulator valve comprising a hydraulic slide movable in a sheath under drive from the pressures P1 and P2 taken directly from the terminals of the meter and acting on two end inlets of said regulator valve on  
15 respective sectional areas S1 and S2 of the hydraulic slide, said slide having a first annular neck for allowing fuel to recirculate to said high pressure pump by putting a first feed inlet of said sheath connected to an outlet of said high pressure pump into communication with a feed outlet of said sheath connected to an inlet  
20 of said high pressure pump, wherein said hydraulic slide further includes a second annular neck for providing another recirculation path to said high pressure pump by putting a second feed inlet of said sheath connected to said inlet of the meter into communication with an  
25 auxiliary feed outlet of said sheath connected to said inlet of the high pressure pump.

2. A fuel metering unit according to claim 1, wherein said second feed inlet is connected to said inlet of the  
30 meter via a fixed diaphragm.

3. A fuel metering unit according to claim 2, wherein said fixed diaphragm has an orifice either pierced through said sheath or else made outside said regulator  
35 valve.

4. A fuel metering unit according to claim 1, wherein said auxiliary feed outlet is connected to said inlet of the high pressure pump via a variable diaphragm.
- 5 5. A fuel metering unit according to claim 4, wherein said variable diaphragm comprises a plurality of orifices of identical shape distributed in equidistant manner around said sheath through which they are pierced and offset from one another in the travel direction of said  
10 regulator valve.
6. A fuel metering unit according to claim 5, wherein said orifices are of a section selected from the following sections: circular, rectangular, triangular,  
15 and oblong.
7. A fuel metering unit according to claim 6, wherein said orifices are made by electroerosion.
- 20 8. A regulator valve for a fuel metering unit according to claim 1.